

CLAIMS:

1. A method for oxidising an inorganic species in an aqueous solution comprising the steps of:

(i) supplying an oxidisable source of sulphur, and
5 oxygen to the solution; and

(ii) irradiating the solution with UV light such that the species is oxidised.

2. A method as claimed in claim 1 wherein the oxidisable source of sulphur is SO_3^{2-} , $\text{SO}_2(\text{g})$, aqueous SO_2 ,
10 HSO_3^- , $\text{S}_2\text{O}_3^{2-}$, $\text{S}_4\text{O}_6^{2-}$.

3. A method as claimed in claim 1 or claim 2 wherein the inorganic species is present in the aqueous solution in trace quantities.

4. A method as claimed in any one of the preceding
15 claims wherein the inorganic species is arsenic, manganese, cerium, and/or iron.

5. A method as claimed in any one of the preceding claims wherein the wavelength of UV light is less than 300nm.

20 6. A method as claimed in any one of the preceding claims wherein dissolved oxygen is derived from air.

7. A method as claimed in any one of claims 1 to 6 wherein dissolved oxygen is derived from a gas source with an oxygen partial pressure of about 0.2 atmospheres.

25 8. A method as claimed in any one of the preceding claims wherein the aqueous solution is one of: drinking water, industrial waste water, or an industrial process liquor.

30 9. A method for oxidising inorganic species in an aqueous solution substantially as herein described with reference to the Examples.

add
add
(27)

004060" E24E9460